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Focus: Celebrating The Earth

Utahns Celebrate Earth Day in Many Ways

By Jack Wilbur
Editor, *Utah Watershed Review*

Salt Lake City--Morning rain dampened activities but not spirits during various 30th Anniversary Earth Day celebrations in the Salt Lake Valley on April 22nd.

One of the largest events was the Earth Day fair at Gardner Historic Village in Midvale. Billed as a family event, the fair offered educational booths sponsored by agencies and private groups; an earth walk along the Jordan River to learn about recycling, birds and watersheds; live music; and a "kids yard". The kids area included face-painting, a balloon artist, an area to make a bird feeder out of a pine cone, and an area to make recycled sculptures using leftover paper and paper towel rolls.

"It was a huge success this year," said Jessy Tuddenham, projects manager, Utah Society for Environ-

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Two of the several hundred children who attended the Earth Day event at Gardner Village recycle refuse into a crafts project. This was one of many activities for kids.

SLOC Recognizes Environmental Awareness at Earth Day Event

Midvale--In honor of the 30th anniversary of Earth Day, the Salt Lake Organizing Committee (SLOC) for the 2002 Olympic and Paralympic Winter Games staged a formal presentation at the Gardner Village Earth Day celebration April 22 to recognize seven local and national environmental initiatives.

"On Earth Day we have a great opportunity not only to introduce SLOC's Spirit of the Land Awards, but remind everyone that the environment is the third pillar of Olympism with sport and culture," said Mitt Romney, SLOC president and CEO. "It takes all of us working together to protect the environment. I want to congratulate all the Spirit of the Land award winners."

The Spirit of the Land awards were created to recognize outstanding efforts by individuals and businesses to educate people about environmental issues in all areas of society: business, education, government and youth. Every year until the 2002 Games, SLOC will recognize achievements of individuals and organizations for their endeavors to educate the community and preserve the environment.

One of the winning organizations, Bank of America pride itself on recycling effort. "Recycling is a cornerstone of the Bank of America environmental commitment," said Ken Lewis, Bank of America presi-

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"PeaceTrees Salt Lake City" won the Spirit of the Land award in the youth category

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Governor Helps Take Pride in Utah

Leavitt fits political conventions and conservation work into same day

Average people occasionally find themselves needing to be in two places at once. For Utah Governor Michael O. Leavitt, he also had to be a quick-change artist.

This year's annual Take Pride in Utah (TPIU) celebration was extended to a full month, but the only Saturday the governor could participate was also the same day as the Salt Lake and Utah counties Republican conventions.

So the Governor's day started at Jackson Elementary school help parents and community volunteers build a playground. From their Leavitt travelled a few blocks away to the site of the Salt Lake County Republican Convention, where he quickly changed out of jeans and a golf shirt into a suit and tie. Following the appearance in Salt Lake, he travelled to Utah County for another convention appearance. Then, changing clothes again, he was ready to shovel more soil to help plant trees at Dixon Middle School in Provo.

The new month-long version of TPIU kicked off in Beaver County with a watershed restoration project attended by 250 high school students on April 14th. The Utah Department of Agriculture and Food, the Utah Association of (Soil) Conservation Districts and Utah State University Extension sponsored the event. Utah Commissioner of Agriculture Cary G. Peterson helped plant willows and thanked the young people for their community spirit.

Utah Governor Michael O. Leavitt helps reduce the size of a large pile of wood chip that will used in the new playground area. Each year during his administration the governor has participated in Take Pride in Utah, giving up part of a Saturday.

Additionally, Utah BLM Director Sally Wisely participated in TPIU events in the Price area. She helped build a hiking trail near the Cleveland-Lloyd Dinosaur Quarry in the morning and help cleanup an OHV trail in the afternoon.

Kathleen Clarke, executive director, Utah Department of Natural Resources, participated in an urban fishery project in South Jordan.

Many other community cleanup and fixup events have taken place this spring from North Ogden to Hoytsville.

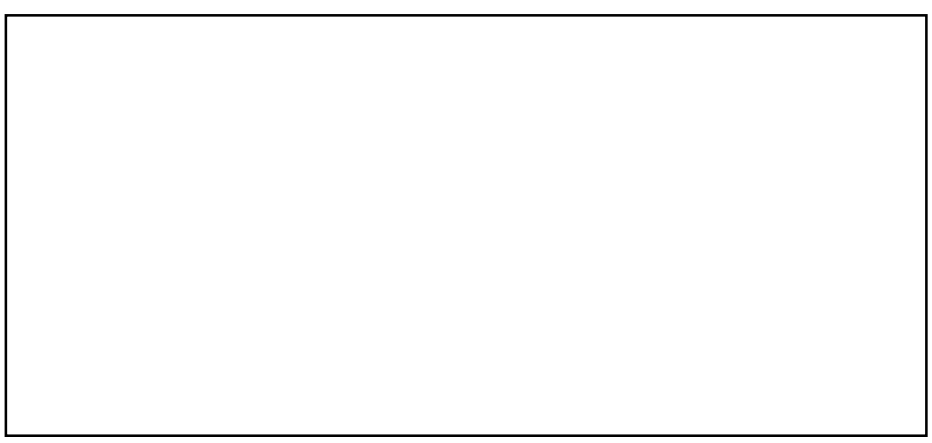
Utah is one of the few states remaining that holds a statewide cleanup effort which began as the Take Pride in America campaign during the Bush administrations as one of the Thousand Points of Light agenda

Murray City Combines Earth Day and Arbor Day Celebrations

Nearly 200 5th grade students from the Murray School District gathered at Murray City park April 28th for an afternoon of educational activities centered around natural resources and the environment.

The Utah Division of Water Quality and the Utah Department of Agriculture and Food demonstrated the Enviroscape watershed model, and Salt lake County demonstrated how things we do in our own yards and driveways can cause stormwater pollution.

Other groups presenting included Tracey Aviary, Murray City Power and the Utah Division of Wildlife Resources wetland education presentation.



Steve Burgon, Salt Lake County, explains how fertilizer gets into storm drains.

Utah Watershed Review

Editor .....Jack Wilbur

Editorial Review

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mental Education. “We were definitely aiming for a family-oriented event.”

Although the weather was a factor early, it didn’t keep people from showing up and having a good time.

“Does everybody have sunscreen on?” Brown asked the crowd as he welcomed them to the event. “The sun is coming. It just got delayed in Logan or something,” he continued while pointing toward the sky.

The Salt Lake Organizing Committee for the 2002 Winter Olympic games used the earth-friendly occasion to present their Spirit of the Land Awards. The awards were created to recognize outstanding efforts by individuals and businesses to educate people about environmental issues in all areas of society. (*Please see the full story on page 3.)*

“Earth Day is something I think we’ve all learned a lot about in the last 30 years,” said Terry Wood, local television news anchor and president of the board of Tree Utah. “I heard somebody on the radio day before yesterday saying ‘Earth Day, I just don’t get it.’ Well that’s a shame, because so many more people have gotten it in the last 30 years. They’ve gotten what we’re all about,” said Wood, who hosted the Spirit of the Land Awards ceremony.

Across town in Salt Lake City’s Liberty Park, Earth Day looked a little like Woodstock as thousands gathered for Earth Jam 2000. The 19 musical performances scheduled from noon through the evening attracted an estimated 10,000 people to the park.

Organizer Mark Woodbury said the event was about promoting world peace and protecting the environment.

Many Utah and national organizations used the event as an opportunity to gather signatures on petitions. There was a petition to get Green Part presidential candidate Ralph Nader on the ballot, another to put fluoride in water, one to prohibit the Legacy Highway, to drain Lake Powell, and to allow therapeutic use of cannabis.

Crafts booths focused on tie-dyed clothing and hemp jewelry. The items and the atmosphere seemed to be a hit with the younger, free-spirited crowd, which was in sharp contrast to the more subdued and suburban crowd at Gardner Village.

Further north in the Poplar Grove neighborhood along the Jordan River in Salt Lake City, residents held their ninth annual Jordan River Cleanup effort. This year the group worked to clean and improve the Alzheimers Wildlife Grove at 250 South, an area at 600 South near the Jake Garn footbridge and at the bend in the river at 1150 South.

Gordon Starrs of the Poplar Grove Community Council said the Jordan River Parkway is the most important asset in the neighborhood.

“The more we can get people out on the river and seeing what the river has to offer, the more we’ll feel like a real community,” he said.

Along with the work project, the Poplar Grove celebration included canoe rides along the river, environmental games, face painting, and free lunch for participants.

At the same time along the Jordan River on the opposite end of the valley, Utah Governor Michael O. Leavitt was dedicating a new stretch of the Jordan River Parkway. Work was recently completed on a boardwalk and bike trails along the river between 12300 South and Bangerter Highway (approximately) 13700 South. According to Leavitt the parkway will be an important asset to the local community. The two-mile stretch of parkway also adds another important piece of the puzzle as work continues to someday have a continuous parkway from Utah Lake in Utah County to the Great Salt Lake in Salt Lake County.

Making homemade bird-feeders out of pine cones, peanut butter, corn meal, and bird seed was one of the favorite activities for kids at the Gardner Village Earth Day.

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dent and chief operating officer.

And the winners are...

Business--Bank of America Recycle Program

Bank of America's National Recycle Program won for its innovative and effective paper-recycling program. In 1999 Bank of America recycled 23,063 tons of paper which is equivalent to 392,071 trees. Recycling also save on energy costs and landfill waste.

Community--Ogden Nature Center Environmental Education Programs

The Ogden Nature Center's environmental programs strive to unite people and nature through three major types of programs: school, community and outreach emphasizing hands-on experiences in natural settings. In 1999, 12,000 diverse school children, parents and teachers participated in the Ogden Nature Center's School Programs and 1,100 children and adults attended the 50 community programs.

Education--Wild SITE (Students Investigating Their Environment)

Fiddler's Canyon and Center Elementary schools in Southern Utah preserved two "Wild Sites" in their communities and trained all teachers in the schools to use the Wild Site Wildlife Action Book. Ninety percent of teachers and students participated in the program in the first year, supplying backpacks for kids with field guides, binoculars, and magnifying lenses to conduct the research.

Government--Fishlake National Forest Gooseberry Third Grade Environmental Education Program

The Fishlake National Forest has coordinated this overnight environmental education program for third grade students in Sevier, Piute and Wayne counties for 22 years. About 100 third graders from the area spent one night at this program. Students studied stream ecology, fire management, plants and forests, archaeology, wildlife management, and fishing in hands-on classes.

Youth--PeaceTrees, Salt Lake City

PeaceTrees is an ongoing project in which a wide variety of kids come together for 10-12 days and learn environmental skills, effective communication, peacemaking and leadership.

Sixty teenagers from diverse cultures, socio-economic backgrounds, religious communities and ethnic populations meet to complete environmental projects along the Jordan River and to further teach what they learn to others in their communities.

Community--PAWS-On

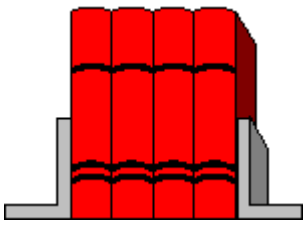
PAWS-On (Plants, Animals, Water and Soil) are workshops for teachers sponsored by local soil conservation districts and 80 other organizations in the Uintah Basin. In 1999, more than 2,300 teachers, including those in the Ute Nation, participated in the hands-on learning experiences.

Community--Swaner Nature Preserve

The Swaner Nature Preserve is a land trust dedicated to the preservation and restoration of open space in Summit County as vital upland, lowland and wetland habitat.

Education programs include snowshoe tracking of wildlife and winter ecology programs for fourth and fifth grade school children.

This first edition of the Spirit of the Land awards contest attracted 35 entries in the various category. Next year's contest should be announced January 2001.



Learning About Our Water

Understanding the physical and chemical properties of water is as important as understanding how it is polluted. The true/false water quiz on this page works well with students in the older elementary grades (5th-6th) and in 9th grade physical science.

This quiz is found on the national website for the US Geologic Survey. *http://water.usgs.gov*.

From there you will click on Water Science for Schools. Click on Activity Center. There are four challenge questions to choose from. The true/false quiz is number three.

The USGS site also has fact sheets, technical reports, news releases, a guide to federal laws and regulations and posters for grades K-12. These are cartoon posters on subjects from wetlands, water use and wastewater, to ground water and water quality.

Water Properties Quiz

True___ **False**___ 1. Water contracts (gets smaller) when it freezes.

True___ **False**___ 2. Water has a high surface tension.

True___ **False**___ 3. Condensation is water coming out of the air.

True___ **False**___ 4. More things can be dissolved in sulfuric acid than water.

True___ **False**___ 5. Rainwater is the purest form of water.

True___ **False**___ 6. It takes more energy to heat water at room temperature to 212 degrees F than it does to change 212 degree F water to steam.

True___ **False**___ 7. If you filled a glass full of water from the Great Salt Lake, when it evaporated there would be one inch of salt left.

True___ **False**___ 8. Sea water is slightly more basic (the pH value is higher) than most natural fresh water.

True___ **False**___ 9. Raindrops are tear-shaped.

True___ **False**___ 10. Water boils quicker in Denver, Co. than at the beach.

Answers

1. *False*--Actually, water expands (gets less dense when it freezes, which is unusual for liquids. Think of ice--it is one of the few items that floats as a solid. If it didn't, then lakes would freeze from the bottom up and some lakes in extreme northern regions would have permanent blocks of ice.

2. *True*--Water has the highest surface tension among common liquids (mercury is higher). Surface tension is the ability of a substance to stick to itself (cohere). That is why water forms drops, and also why when you look at a glass of water, the water "rises" where it touches the glass (the meniscus"). Plants are happy that water has a high surface tension because they use capillary action to draw water from the ground up through their roots and stems.

3. *True*--Water that forms on the outside of a cold glass or on the inside of a window in winter is liquid water condensing from water vapor in the air. Air contains water vapor (humidity). In cold air, water vapor condenses faster than it evaporates. So, when the warm air touches the outside of your cold glass, the air next to the glass gets chilled, and some of the water in that air turns from water vapor into tiny droplets of liquid water. Clouds in the sky and the "cloud" you see when you exhale on a cold day are condensed water-vapor particles. (It is a myth that clouds form because cold air cannot hold as much water vapor as warm air.)

4. *False*--Sulfuric acid might be able to dissolve a car, but water isn't known as the "Universal Solvent" for nothing! It can dissolve more substances than any other liquid. If water couldn't dissolve sugar, for example, the sugar would end up in a pile in the bottom of the soda pop can. The water you see in rivers, lakes and oceans often times looks clear, but it actually has many dissolved elements and minerals. Because these elements are dissolved, they can easily move with water over the surface of the earth.

5. *False*--Believe it or not distilled water is purer. Rainwater contains small amounts of dissolved minerals that have been blown into the air by winds. Rainwater contains tiny particles of dust and dissolved gasses, such as carbon dioxide and sulfur dioxide (acid rain). However, rainwater is usually very clean. Only about 1/100,000th of the weight of rain comes from these substances.

6. *False*--First, water at boiling temperature (212 degrees F at sea level) is not really the same as boiling water. When water first reaches boiling temperature it has not yet begun to turn to steam. More energy is needed to begin turning the liquid water into a gaseous vapor. The bonds holding water molecules as a liquid are not easily broken.

7. *True*--They don't call it the Great Salt Lake for nothing. Water in the Great Salt Lake is about 25 percent salt. Seawater has a salt concentration of about 3.5 percent.

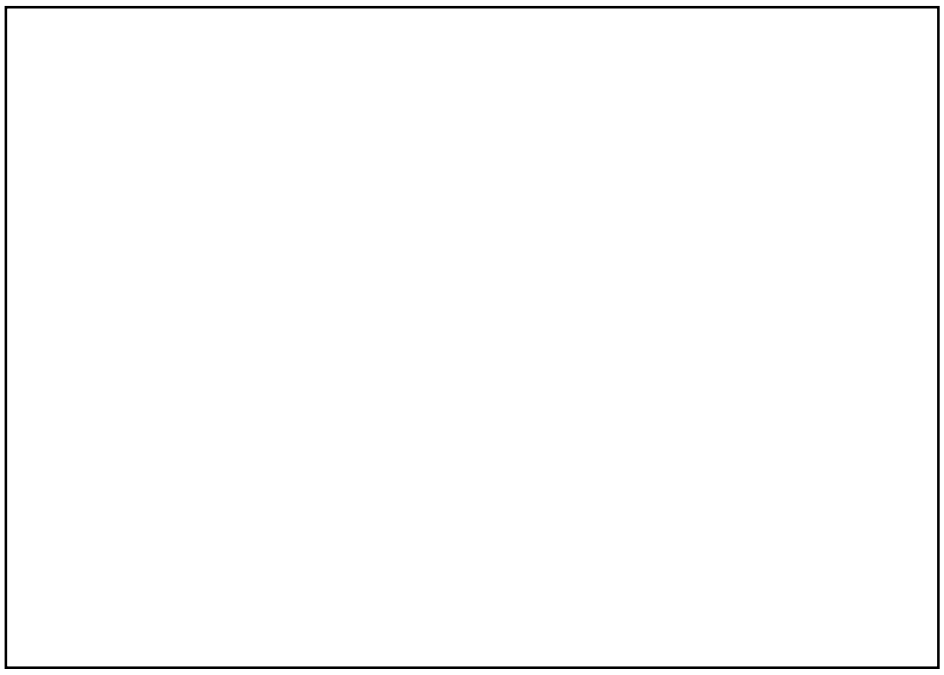
8. *True*--Neutral water (such as distilled water) has a pH of 7, which is in the middle between being acid and alkaline. Seawater is slightly alkaline (basic), with a pH of about 8. Most natural water has a pH of between 6-8, although acid rain can have a pH as low as 4.

9. *False*--When you think of a drop of falling water you probably think it looks like a droplet. When a drop of water comes out of a faucet or a pipet (eyedropper) it does have a tear shape because the back end of the water drop sticks to the water still in the faucet. As rain falls the air below the droplet pushes up and flattens it out a bit.

10. *True*--The boiling point of water gets lower as you go up in altitude. At sea level (the beach) water boils at 212 degrees F, but at 10,000 feet above sea level water boils at 193.7 degrees F. This is because as the altitude gets higher, the air pressure (the weight of all that air above you) becomes less. Since there is less pressure pushing on a pot of water at a higher altitude, it is easier for the water molecules to break their bonds and attraction to each other. When this happens water boils more easily.

Community-based Watershed Activities

Beaver River Watershed Day a Success



Cary G. Peterson, Utah Commissioner of Agriculture and Food, and Mark Nelson, Beaver County extension agent, inspect a recently planted willow.

More than 250 Beaver County students put down their books and picked up shovels recently for a day to help improve the water quality of the Beaver River during the Utah Department of Agriculture and Food's annual Take Pride In Utah activities. Student and adult volunteers will plant more than a thousand willow trees along the river to help stabilize the bank and reduce erosion.

The Beaver River in Beaver County is one of many rivers across the country that has seen reduced fish populations because they contain increased levels of phosphorus and sediment. The Take Pride in Utah project is intended to improve water quality and make it more fishable by reducing the levels of those two elements.

As the newly planted willow trees mature, their root systems will help hold the riverbank in place, preventing erosion. The trees also absorb phosphorus from the water as they grow.

The Take Pride in Utah project was part of the Beaver River Watershed Day activities Friday April 14, 2000. After planting willows and trees in three locations along the river, volunteers and organizers gathered at the park for a lunchtime barbecue. During lunch Cary Peterson, Utah Commissioner of Agriculture and Food, handed out certificates to the leaders of the Minersville and Beaver 4-H teen councils. Both groups have adopted sections of the river and perform ongoing stewardship activities.

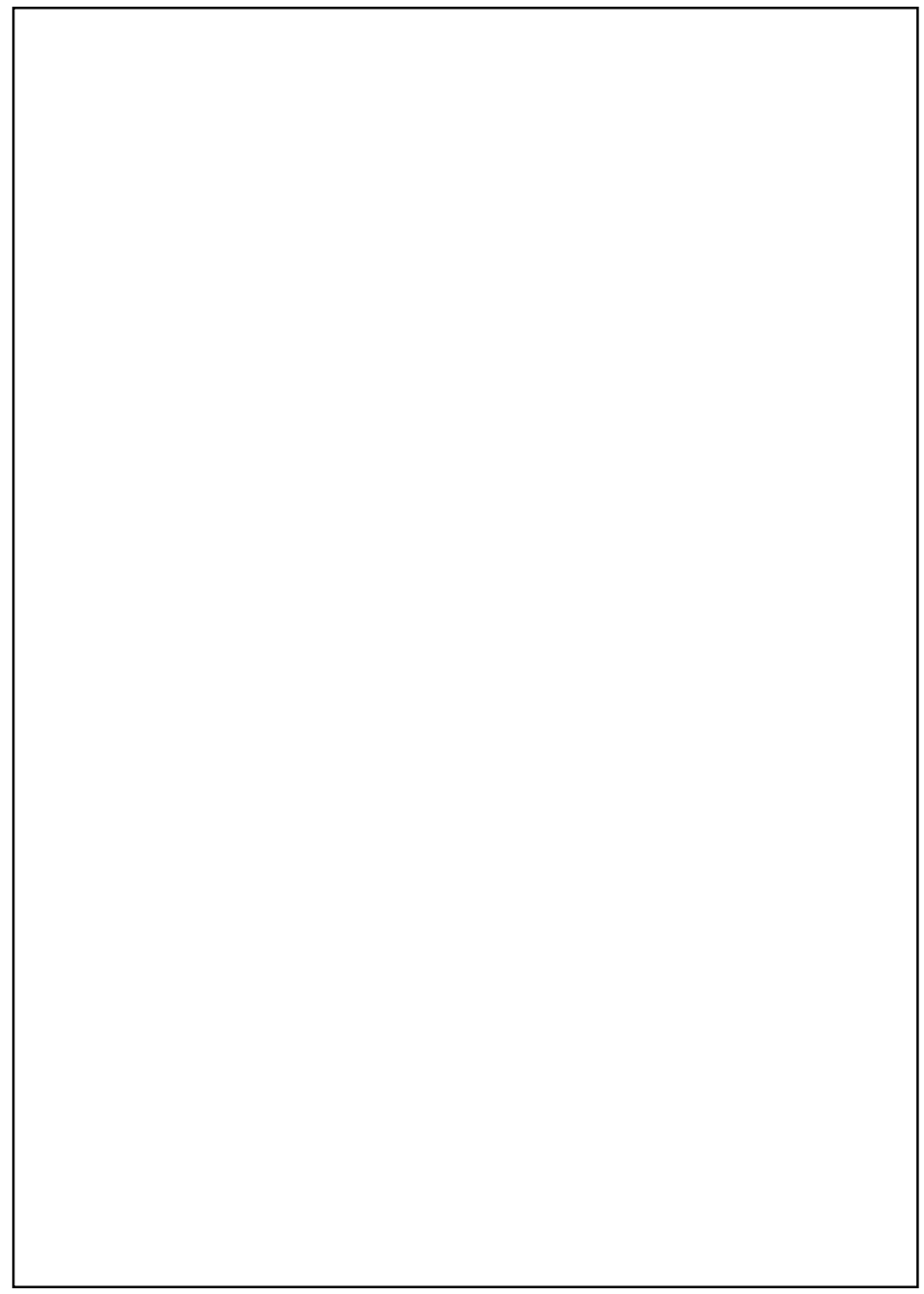
"When you have children in high school this valley will look completely different. Growth is inevitable. How you grow and how you take care of your natural resources is up to you," said Peterson.

Along with the tree planting, other watershed work will include the management of: animal manure, general rangeland practices and water irrigation. To date about 12 water quality projects along the river have been completed.

At the Beaver City location, a cattle and dairy rancher will build new fences to keep his herd away from the water, which is another source of phosphorus. Rancher Jeff Joseph who owns property on both sides of the river, initiated the clean up project and is contributing up to 25 per cent of the project's costs. The majority of the funding comes from the U.S. Environmental Protection Agency.

"This is a good opportunity to increase public awareness and support for our watershed restoration efforts," said Mark Nelson, Beaver County Extension Agent.

The multi-organization group overseeing the locally-led effort includes representation from Beaver County Extension, the Beaver Soil Conservation District, Beaver County, Utah Division of Wildlife Resources, Utah Division of Water Quality, Utah Department of Agriculture and Food, U.S. Fish and Wildlife Service, Bureau of Land Management and the Forest Service.



Two Beaver High School Students drive a stake in the ground to make way for a dormant willow. Two other students planted to willow in the ground moments later.

State Loan Fund to be Used for Nonpoint Pollution Projects

By Walt Baker
Utah Division of Water Quality

On March 16, 2000, Governor Leavitt signed into law House Bill 265, "Water Pollution Loans", sponsored by Rep. Bill Wright (R-Elberta). This bill provides authority to the Water Quality Board to make loans, but not grants, for many kinds of nonpoint source pollution (NPS) projects. As a result of this bill, a significant source of funding may soon be available to help reduce water pollution caused by uncontrolled runoff, to repair or replace failing on-site wastewater disposal systems, or for projects that will help implement total maximum daily load (TMDL) assessments.

Since 1985, the Water Quality Board has made nearly $220 million of loans to Utah cities, towns and improvement districts to assist in the construction of municipal wastewater facilities. While funding needs associated with point-sources of pollution remain great, the majority of Utah's water pollution is caused by nonpoint sources. Until now the Water Quality Board has been constrained by law to provide assistance to only "political subdivisions of the state", thus preventing individuals or soil conservation districts from receiving funding assistance from the Board.

"Changes to the statute now allow NPS projects sponsored by 'individuals, corporations, associations or other private entities' to be eligible for funding," said Don Ostler, director, Utah Division of Water Quality.

Before it begins making NPS loans, the Water Quality Board must first develop administrative rules to govern the program. The Division of Water Quality (DWQ) has evaluated the NPS loan programs in Ohio, Delaware, Rhode Island, Minnesota and West Virginia and intends to copy parts of their programs which will best meet Utah's particular needs. Further, DWQ will partner with the Utah Department of Agriculture, NRCS, the Association of Conservation Districts and other interested parties to develop the framework of the program. The Water Quality Board intends to leverage its loan funds with other state and federal funds in order to fund as many worthy projects as possible. The goal is to have the program in place in the Fall of 2000 and for the Water Quality Board to entertain NPS project funding applications soon thereafter.

'Changes to the statute now allow NPS projects sponsored by individuals, corporations, associations or other private entities to be eligible for funding.'

Don Ostler

The Water Quality Board's NPS funding program will be capitalized from annual grants from EPA and from payments of principal and interest on loans previously made. While approximately $12 million per year is currently available for the Board to fund NPS projects, the Board will likely limit its funding for NPS projects to approximately $1 million per year. This amount may increase in the future depending on the number of applications for NPS funding that are received and the readiness of projects to proceed.

The terms which would be offered under this loan program have not yet been developed, but federal regulations allow interest rates as low as zero percent and require loans to be fully repaid within 20 years. A system to prioritize the funding applications must also be developed as well as a means of securing the loans.

Nearly all costs related to planning, designing and implementing a NPS project will be eligible under this program. This includes the costs for equipment, land, construction, consultants, project administration and materials. Loan funds from the Water Quality Board may be used without restriction to match federal grants and there is no match requirement associated with the loan funds themselves. This program, which is new to Utah, will allow a significant additional source of funding to be brought to bear on nonpoint source pollution problems.

The Division of Water Quality welcomes input from interested parties in the development of this program.

Researchers Use Trees to Clean up Ground Water

Phytoremediation works but is not widely used

Groundwater is an important resource in Utah. It is estimated that groundwater accounts for about half of the culinary water in Utah's urban areas and as much as 90 percent in rural areas. However, when groundwater gets contaminated it can take a huge amount of time, money and effort to clean it up. Research and work is on-going to come up with better and more efficient ways to treat groundwater.

"A lot of companies are looking for better alternatives to treat groundwater," said Brandon Chard. Chard and his wife Julie manage a company in Cache Valley called phytokenetics, a firm specializing in phytoremediation, an alternative form of groundwater and soil treatment.

"There are a lot of ways to deal with it [groundwater cleanup], but some of the more conventional methods have actually contaminated the air, said Chard. Phytoremediation, according to Chard, is an aesthetically pleasing process that is gaining popularity with the public. People would rather see a large stand of poplar trees than a big machine, Chard said.

Phytoremediation has been very effective in reducing groundwater contamination in several research sites, according to company literature. The process has worked on a 20-acre sludge lagoon sit in Muskegon, Mich. and at a solvent recovery site in Southington Conn., where chlorinated contaminants were reduced.

Chard said the public has been skeptical of the practice, especially in Western states, where some people think the company is a pro-environmentalist firm. The stigma has hindered the company's success locally.

On the Eastern seaboard the process has been looked on more favorably, yet public acceptance still slow in coming.

The story is different in Michigan, however, where more than 13,000 trees have been scheduled for planting. In Connecticut, 1,000 poplars and willow trees are presently at work, functioning as a natural "pump and treat" system.

Dr. Ari Ferro, a pioneer is phytoremediation, established Phytokenetics in 1994 as an alternative to traditional methods of soil removal and washing. He suggested that deep-rooted, waterloving trees could act as a natural treatment for contaminated soil, capturing and filtering a broad spectrum of groundwater contaminants from agricultural and industrial waste.

Organic contaminants, such as nitrates and phosphates, have been a focal point for phytoremediation thus far, but additional projects involving heavy metal contaminants have also been explored.

While poplars have been used extensively, deeper-rooted trees that are resistant to toxins are now being considered for use in experimental sites.

The USDA Natural Resources Conservation Service (NRCS) has discussed vegetation buffers as one of four ways to improve water quality. Woody vegetation is not always permitted along canals, but establishing trees would provide shade and draw up nutrients from the soil.

Chard believes that buffer zones may be the answer to reducing some of the primary agricultural pollution in the Bear River Basin.

The Bear River is on Utah Section 303(d) list of impaired waters. Section 303 (d) is a part of the federal Clean Water Act that requires states to assess its waterways ever two years and list those waters that are not needing their beneficial use classifications

Another advantage to using trees is that they are an inexpensive on-site method of treatment. The same equipment used in production agriculture is used in phytoremediation. Farmers have been planting trees as wind buffers for years.

Utah CAFO Strategy Gets Good Reviews

Utah's strategy to address water pollution from animal feeding operations is being held up as a positive example.

EPA headquarters staff and Region VIII staff applauded the document as a good state example in recent meetings. One aspect of Utah's program that sets it aside from the rest is the "window of opportunity" for operators that could be designated as concentrated animal feeding operations (CAFOs) and required to get a pollution discharge permit to make needed improvements within a specified time frame. According to the strategy, an operation could then remain a non-regulated animal feeding operation (AFO).

This opportunity for improvement without a permit would apply only to operations with fewer than 1000 animal units that could potentially be a significant source of pollution or that discharge directly into a waterway.

Under Utah's plan such an operations would have two years to develop a plan to make the necessary improvements and another three years to implement those improvements.

"If these milestones are not met, then a more formal compliance program would be initiated via a pollution discharge permit.

The Utah Strategy has gone through several drafts. The final draft will soon be submitted to EPA.

This Aerial Photograph of Stuart Hopkin's winter corals on the banks of the Bear River clearly show that his 600-head operation would have been permitted as a CAFO. Instead, Hopkin spent his own money and obtained grants and loans to move the winter feed yard about a mile away from the river (shown in the inset photo). All this happened while Utah's CAFO strategy was being written, but the idea behind the strategy is to give operations like Hopkin's, that might be designated as CAFOs because of discharges, time to correct problems and avoid being required to obtain a permit.

NPS Conference set for Logan

The 11th annual Utah Nonpoint Source Water Quality Conference is scheduled for July 18-20 2000 at the Eccles Conference Center on the campus of Utah State University in Logan, Utah.

This year's theme is: "Water Quality from the City to the Farm." The major topics that will discussed are storm water Phase II regulations and concentrated animal feeding operations (CAFOs) and the Utah and national CAFO management strategies.

William Yellowtail, regional administrator, EPA Region VIII, Denver, CO. will speak during the opening session of the conference. Yellowtail will discuss current water quality issues surrounding stormwater runoff management for smaller municipalities and livestock manure management at concentrated animal feeding operations.

Plenary sessions will discuss in detail each of the above-mentioned topics.

Concurrent sessions will run in three tracks: stormwater, animal feeding operations, and other watershed efforts.

Tuesday July 18 and Thursday July 20 will be conference session days. Wednesday July 19 will be dedicated to day-long tours of the area and an evening barbecue on campus.

One of the tours will include a two-hour float trip along the Bear River to see animal feeding operations from the river's perspective.

For an agenda call or e-mail Jack Wilbur (see page 2 editorial box).

Wes Peterson Passes Away at 75

Utah's soil conservation and water quality efforts lost a good friend in February. Wesley H. "Ben" Peterson, 75, died February 11, 2000 at Hinckley, Utah.

Born July 6, 1924 at Shumway Springs to Parley Pratt Jr. and Bertha Henry Peterson, Peterson attended schools in Ephraim. After high school graduation in 1943, Peterson served in the Navy from 1943-46. Returning to Utah, Peterson graduated from Snow College in 1948. In 1951 he received a B.S. in Range Science from Utah State Agricultural College (now Utah State University).

Last summer Wes celebrated his 50th wedding anniversary with his wife LuWanna Sorensen Peterson, whom he married June 3, 1949 in Manti.

The couple raised eight children: Russell (Shirley) Peterson, Ludington, Michigan; Warren (Judy) Peterson, Oasis; Jeffery (Marcia) Peterson, Tehachapi, California; Ellis (Gretchen) Peterson, Centerville; Janeal (Kenny) Hodges, Salt Lake City; James (Haley) Peterson, Hyde Park; Nathan (Audra) Peterson, Idaho Falls, Idaho; Elizabeth Peterson, Bloomington, Indiana.

A rancher and registered land surveyor, Peterson also worked for the Utah Division of State Lands. He served in various positions in his church and community. He also served on the Delta Soil Conservation District board, Utah Association of Conservation Districts, Governor's Agricultural Advisory Board, Utah Soil Conservation Commission and Millard County Agricultural Protection Advisory Board.

Wes is survived by his wife, LuWanna, his children, and 24 grandchildren. He was preceded in death by one granddaughter and a brother.

Ralph Staheli: Farming Through Urban Storm

Ralph Staheli and his son are the last in the family working this farm near St. George.

Ralph Staheli owns and/or operates about 500 acres of farm ground in the Washington Fields area of Washington County. That is a pretty impressive statement when one considers that there are probably less than 3,000 acres of land still in farming in his part of the county.

Staheli, 58, was born and grew up in Washington City. Even during the decade or so he farmed in Iron County he still kept his home and land in Washington County. This scenic, highly developable area of the state is his home and farming is his way of life.

"I'm the only one in the family who is still farming," Staheli said while pointing out the mosaic of fields and acreage he either owns or operates. "I've got one boy who helps out, but I don't wish it on him."

As Staheli looks around the fields and hillsides with a proud smile, it is easy to see that he is exactly where he wants to be doing exactly what he wants to do. "I want to farm 22 more years. Do you think I can make it until I'm 80?" the thin, healthy-looking Staheli asked.

Staheli is very proud of his pioneer heritage, commenting that three of his four grandparents were sent to Santa Clara by Brigham Young to help settle the area in the mid-1800s. In 1896, Staheli's grandfather moved to Washington City.

The family farm has gone through several types of crops during its more than 100 years in Washington Fields. Staheli's father grew row crops of vegetables. It was profitable for a long time because the growing season was between California and Northern Utah. Later, labor costs became too high to continue. Sugar beet seed became a staple crop for a while. Later, cattle and grain took over as the mainstays at the farm.

Staheli now has about 900 head of cattle (and a pet goat for his grandson) and grows a variety of hay and grains, including alfalfa, barley and some organic wheat and other grains. Staheli, like many of his counterparts is trying to get involved in some niche markets to stay competitive.

As Washington City has grown,

The alfalfa in the foreground represents the ever-shrinking amount of agriculture left in Washington County. The warmer climate attracts development.

This repaired diversion of the Virgin River still shows evidence of damage from the Quail Creek Dam break a decade ago. This water is the life blood of agriculture here.

Ralph Staheli (right) stands with his friend Lyle Bryner (left) in front of a monument celebrating the struggles and accomplishments of the Mormon pioneers who settled Washington County during the 1850s

Staheli has sold or developed a couple of small parcels of land that were no longer easily usable for agriculture. The money from the small developments allow Staheli and his family places to live and the ability to keep farming. Staheli vows to keep the farm through his lifetime, though he admits it's getting tougher and tougher in the growing area to effectively farm.

We want your feedback

In order to continue this feature on conservation farmers and their practices, we need your ideas. Please contact us with any suggestions you have about who to focus on or how to improve this feature.

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